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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/495,886	02/01/2000	Victor Alfaro	60970047-1	5423

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EXAMINER

MOUTTET, BLAISE L

ART UNIT PAPER NUMBER

2853

DATE MAILED: 03/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/495,886

Applicant(s)

ALFARO ET AL.

Examiner

Blaise L. Mouttet

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- ☐ Interview Summary (PTO-413) Paper No(s) _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The applicant has amended the claims in the paper submitted January 30, 2003 to include the feature that certain selected alternate pixel rows are **entirely** eliminated from the higher resolution bitmap (independent claim 1), eliminating certain **entire** pixel rows (independent claim 15) and **completely eliminating** certain linear sequences of pixels such as selected non-adjacent pixel rows (independent claim 19). The applicant has made arguments of the nature that this aspect is disclosed by applicant's invention but not disclosed by the applied prior art. However the examiner fails to find that applicant's specification as originally filed teaches or suggests this feature. In page 2, lines 3-7 of the specification for example it is distinctly specified that some "on" pixels remain in the eliminated rows. The examiner has failed to discover any embodiment or suggestion within the originally filed application of **completely** eliminating pixel rows as claimed.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 3, 4, 12-15 and 17-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The applicant has amended independent claim 1 to include the limitation that alternate pixel rows are **entirely** eliminated. However claims 3, 4 and 12-14 dependent upon claim 1 include the feature that "on" pixels are preserved in the entirely eliminated pixel rows. Thus claims 3, 4 and 12-14 contradict themselves by claiming both that the entire pixel row is eliminated and that the eliminated pixel row has an "on" pixel.

The applicant has amended independent claim 15 to include the limitation that certain **entire** pixel rows are eliminated wherein claim 15 also recites that an "on" pixel from one of the eliminated pixel rows is preserved. Thus the claims contradict themselves by claiming both that the entire pixel row is eliminated and that the eliminated pixel row has an "on" pixel.

New independent claim 19 claims both that certain linear sequences of pixels such as selected non-adjacent pixel rows are **completely eliminated** and that "on" pixels from an eliminated pixel row are preserved. Thus the claims contradicts themselves by claiming both that the entire pixel row is eliminated and that the pixel row has an "on" pixel.

Since claims 3, 15 and 19 and the claims dependent therefrom contain this contradictory feature and the examiner is unable to disambiguate the claimed subject

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matter by a thorough review of the specification the examination of claims 3, 4, 12-15 and 17-20 under 35 USC 102 and 35 USC 103 is not possible at this time.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 7, 8, 10, 11 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Klassen et al. US 5,677,714.

Klassen et al. discloses, regarding claim 1, a technique for bilevel printing comprising:

providing an inkjet printhead (22) having a nozzle pitch of a first resolution (300 dpi) (column 3, lines 42-44, column 1, lines 35-40);

creating a higher resolution bitmap (600 dpi) which resolution is greater than the first resolution (column 3, lines 63-66);

eliminating certain selected alternate pixel rows entirely from the higher resolution bitmap by converting the higher resolution bitmap into a downscaled lower resolution bitmap having a reduced number of rows available for printing (as described in relation to figure 5, step 105 all even row pixels are initially designated "on" while all odd row pixels are initially designated "off");

printing the downscaled lower resolution bitmap into an asymmetrical pixel grid having the first resolution in one axis and the second resolution in the second axis (figure 7, column 5, lines 35-45).

Regarding claim 2, the conversion is done by applying a narrowing process on a row by row basis in the carriage scan axis (axis of higher resolution) while preserving vertical edge pixels (S104, S110).

Regarding claims 7, 8 and 10, the higher resolution is 600 dpi in the carriage scan direction and the lower resolution is 300 dpi in the media feed direction (see abstract and figure 7).

Regarding claim 11, the bitmap processing is not specified for plural colors.

Regarding claim 16, an interior depletion pattern is performed on the interior pixels in the horizontal carriage scan axis with different edge depletion steps performed for the edge pixels (abstract, figure 5).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klassen et al. US 5,677,714 in view of Kanematsu et al. US 6,183,055.

Klassen et al. prints an asymmetrical pixel grid of 300 dpi in the media advance axis and 600 dpi in the horizontal carriage scan axis.

Klassen et al. fails to disclose utilizing an asymmetrical pixel grid of 600 dpi in the media advance axis and 1200 dpi in the horizontal carriage scan axis.

Kanematsu discloses a bitmap for an inkjet printhead that that prints 600 dpi in the media advance axis and 1200 dpi in the carriage scan axis (column 8, lines 33-39).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the higher resolution parameters of Kanematsu in the method of Klassen et al.

The motivation for doing so would have been that higher resolution results in higher image quality as suggested by column 1, lines 35-47 of Klassen et al.

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Klassen et al. US 5,677,714 in view of Kanematsu et al. US 6,183,055.

Klassen et al. fails to disclose, regarding claim 9, that the that the higher resolution bitmap is symmetrical.

Rylander discloses that bitmap data for an inkjet printer generated by increasing from 300 dpi to 600 dpi symmetrically in both vertical and horizontal directions (column 6, line 60 - column 7, line 5).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to form the higher resolution bitmap to be symmetrical (600 dpi x 600 dpi) as taught by Rylander.

The motivation for doing so would have been to achieve increased addressability of the pixel bitmaps as suggested by column 6, line 60 - column 7, line 5 of Rylander.

Response to Arguments

6. The applicant's arguments have been considered in light of the amended claims however the amendments necessitated the new rejections as detailed above.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Blaise Mouttet whose telephone number is (703) 305-3007. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Barlow, Jr. Art Unit 2853, can be reached on (703) 308-3126. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3432.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Blaise Mouttet March 14, 2003



Huan Tran
Primary Examiner

BM 3/14/2003